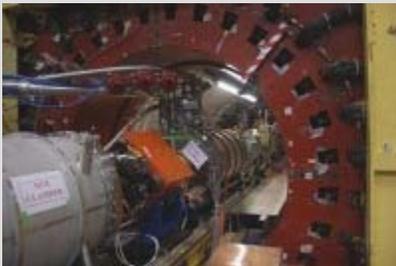


**Around the World**

**Commission accomplished**

*Part three of a series on how the CESR storage ring turns into the CEsrTA damping ring*



CesrTA after the reconfiguration.

When you have a set of new hardware and a clear mission ahead of you, the first step to complete the mission is to commission the hardware. After reconfiguring their storage ring and light source CESR, Cornell University and the international ILC team working on damping ring studies switched on the machine in early October and performed the first electron cloud studies in the low emittance configuration in November. "It was an intense week and we have some very interesting new data," says Mark Palmer, CEsrTA project manager. [Read more...](#)

-- Barbara Warmbein

**Calendar**

**Upcoming meetings, conferences, workshops**

[8th SiLC Meeting](#)

IFCA, Santander, Spain  
17-19 December 2008

[Accelerator Reliability Workshop](#)

TRIUMF, Vancouver, Canada  
26-30 January 2009

**Upcoming school**

[The US Particle Accelerator School](#)

Nashville, Tennessee, USA  
12-23 January 2009

[GDE Meetings calendar](#)

**Feature Story**

**Beauty lies within**

*New machine fixes the inner surface of cavities*



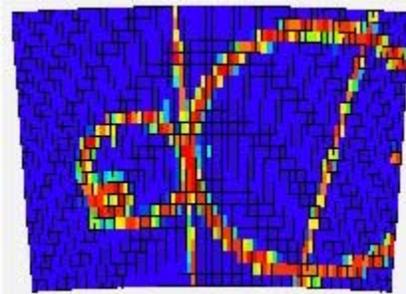
First prototype of the placed inside a test piece for the iris portion of a cavity Photo: Nobu Toge

The inner surfaces of the niobium cavities for the International Linear Collider have to be polished to literally sparkle, since the smallest defects, such as bumps, pits, welding flaws or human-induced scratches on them are considered to be dominantly responsible for the deterioration of the cavity performance and can even lead to quenches and field emission. Many techniques and technologies have been studied and developed already to address this challenge. At the end of November, the first prototype of a new gadget developed with different approach was delivered to KEK. [Read more...](#)

-- Rika Takahashi

**Image of the Week**

**TPC spells out its first tracks**



The prototype of a future time projection chamber (TPC) is tracking its first events in a 1-Tesla magnet and an electron test beam at DESY. This means that not only the detector prototype but also the EUDET test facility EUDET is now fully

**Director's Corner**

**A low-energy gamma-gamma collider as a first step toward the ILC?**

The International Linear Collider Steering Committee (ILCSC) met immediately after last month's International Committee on Future Accelerators (ICFA) [Seminar](#) on future prospects for particle physics.



Former KEK Director Hiroataka Sugawara

The spirit of new ideas that prevailed at the ICFA meeting continued into the ILCSC meeting where Hiroataka Sugawara, former director general of KEK, Japan, presented a different approach towards the ILC. He suggested building a lower-energy gamma-gamma ( $\gamma\gamma$ ) machine as a first step towards the ILC. The ILCSC is now evaluating the pros and cons of this idea. They have asked both Research Director Sakue Yamada and me to do some homework to aid them in evaluating this suggestion. [Read more...](#)

-- Barry Barish

[Director's Corner Archive](#)

**Announcements**

**Where's Wally?**

The LCWS / ILC 08 conference photo is now online! Download it [here](#) and see if you can find yourself in it. And don't forget to send your physics-related holiday photos or suggestions for the "What is it?" column to [communicators@linearcollider.org](mailto:communicators@linearcollider.org)!

**arXiv preprints**

[0812.1229](#)

SUSY Without Prejudice at Linear Colliders

[0812.0925](#)

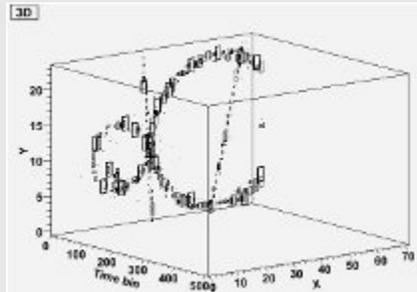
ILC Beam Energy Measurement by means of Laser Compton Backscattering

**EUDET Reports**

[2008-03](#)

[View complete ILC calendar](#)

operational. The TPC is a truly global undertaking: the magnet is a contribution from KEK, a cosmic trigger hodoscope has been made in Saclay using SIPMs stabilised in temperature by Peltier devices, the beam trigger was brought by Nikhef, the mechanics of the endplate is from Cornell, the field cage and the gas and HV systems are from DESY, the detector (a Micromegas module) and the electronics are from Saclay. Keep reading NewsLine for updates.



### In the News

From *Nature*

5 December 2008

#### **Making Europe a better place for research**

European Union unveils its vision for 2020

[Read more...](#)

From *CERN*

5 December 2008

#### **LHC to restart in 2009**

Geneva, 5 December 2008. CERN today confirmed that the Large Hadron Collider (LHC) will restart in 2009. This news forms part of an updated report, published today, on the status of the LHC following a malfunction on 19 September.

[Read more...](#)

From *New Scientist*

4 December 2008

#### **Universe's dark matter mix is 'just right' for life**

IT'S not just the nature of dark matter that's a mystery - even its abundance is inexplicable. But if our universe is just one of many possible universes, at least this conundrum can be explained.

[Read more...](#)

EUDET: Detector R&D Towards the International Linear Collider

[2008-02](#)

The EUDET High Resolution Pixel Telescope - Towards the Final Telescope

[2008-01](#)

The EUDET High Resolution Pixel Telescope